

ABSTRACT

A semiconductor package with a heat sink is provided, having a substrate formed with at least one opening penetrating therethrough. A heat sink is mounted on a surface of the substrate same as for forming solder balls and seals one end of the opening by a thermally conductive adhesive. At least one chip is mounted on the other surface of the substrate opposite to the heat sink via the thermally conductive adhesive and covers the other end of the opening. The thermally conductive adhesive is filled in the opening between the substrate and the heat sink and allows heat produced by the chip to be dissipated through a shorter thermally conductive path. By the above arrangement with the heat sink being mounted between the chip and an external device, the heat sink provides electromagnetic shielding between the chip and the external device and enhances electrical performance of the semiconductor package.